

# EXHIBIT 12

1 UNITED STATES DISTRICT COURT

2 SOUTHERN DISTRICT OF NEW YORK

3 -----X  
4 AXIOM INVESTMENT ADVISORS, LLC, by and  
5 through its Trustee, Gildor Management, LLC,  
6 and AXIOM INVESTMENT COMPANY, LLC, by and  
7 through its Trustee, Gildor Management, LLC,

8 Plaintiffs,

9 -against-

10 DEUTSCHE BANK AG,

11 Defendant.

12 Case No.: 15 Civ 9945

13 -----X

14 601 Lexington Avenue  
15 New York, New York

16 October 27, 2017  
17 8:32 a.m.

18 VIDEOTAPED DEPOSITION of ALEKSANDAR IVIC,  
19 taken before Sadie L. Herbert, a RPR and Notary  
20 Public of the States of New York and New Jersey.  
21  
22  
23  
24  
25



<p>1 IVIC</p> <p>2 A I would say not 100 percent of the</p> <p>3 time, but mainly, yes.</p> <p>4 Q And this is -- Exhibit 38 is one of the</p> <p>5 documents that you would provide them at this</p> <p>6 time, if they were seeking to connect to</p> <p>7 AutobahnFX through the FIX API; is that fair?</p> <p>8 A That's correct.</p> <p>9 MR. GENSER: Object to form.</p> <p>10 THE WITNESS: Sorry.</p> <p>11 Q Were there -- in the 2009 time period,</p> <p>12 when a client was seeking to connect to the</p> <p>13 AutobahnFX FIX API, were there other documents</p> <p>14 other than Exhibit 38 that would be provided to</p> <p>15 them?</p> <p>16 MR. GENSER: Objection, lack of</p> <p>17 foundation.</p> <p>18 A From a technical perspective, if they</p> <p>19 were also looking for, say, an SDP solution, a</p> <p>20 Drop Copy solution, we would provide them with</p> <p>21 another FIX specification for that.</p> <p>22 Q Okay. But did your team provide</p> <p>23 clients any other documentation, other than the</p> <p>24 AutobahnFX FIX API integration guide for those</p> <p>25 clients that were looking for a AutobahnFX FIX</p> <p>57</p>	<p>1 IVIC</p> <p>2 API, because at -- in around that time period,</p> <p>3 there was a migration where many Java API</p> <p>4 clients would go to FIX, so it's -- it's more of</p> <p>5 a standard protocol that industry had developed</p> <p>6 against that protocol.</p> <p>7 Q Okay. What was the purpose of</p> <p>8 providing Exhibit 38 to clients at that time?</p> <p>9 A Right now, to get the FIX messaging,</p> <p>10 that's probably the short answer I can give you.</p> <p>11 So I can give you the example what I mean by</p> <p>12 that.</p> <p>13 Q Please.</p> <p>14 A So, for example, if we turn to page --</p> <p>15 where is -- so Page 12, where it says "Market</p> <p>16 Data Request," if they want to ask for a -- a</p> <p>17 spot trade, they would have to get the -- the</p> <p>18 sequence of -- of this -- of FIX message correct</p> <p>19 and asking us the right parameters in what they</p> <p>20 were after, so if they want to do -- I want to</p> <p>21 subscribe to Euro dollar spot trade for 1</p> <p>22 million, they would have to plug in those</p> <p>23 parameters correctly and conform to the</p> <p>24 specification, they cannot deviate to what they</p> <p>25 would like to do, they have to kind of like</p> <p>59</p>
<p>1 IVIC</p> <p>2 API connection?</p> <p>3 MR. GENSER: Object to form.</p> <p>4 A Right now, all I remember is that we</p> <p>5 provide technical documentation.</p> <p>6 If they're looking for a FIX API --</p> <p>7 we'd look at a FIX API, I believe back then, we</p> <p>8 also were offering the Java API so if they were</p> <p>9 looking for the Java, we will provide them Java</p> <p>10 API documentation so they were able to program</p> <p>11 against.</p> <p>12 Q So the documentation that you would</p> <p>13 provide them depended on what type of solution</p> <p>14 they were looking for, if they were looking for</p> <p>15 Java, you would give them the Java integration</p> <p>16 guide, if they were looking for FIX, you would</p> <p>17 give them the FIX integration guide?</p> <p>18 MR. GENSER: Object to form, asked</p> <p>19 and answered.</p> <p>20 A I believe that's the -- that's the case</p> <p>21 where I've stated, so if they were looking for,</p> <p>22 at this time, in 2009, if they were looking for</p> <p>23 a FIX solution, we were giving them FIX. I</p> <p>24 believe the Java API was still in full swing to</p> <p>25 be allowed to be onboarded, so we'd use the Java</p> <p>58</p>	<p>1 IVIC</p> <p>2 adhere to this. This document is like the rules</p> <p>3 of the road, you know, it's our way that we'll</p> <p>4 understand those requests, and they should be</p> <p>5 interpreting our responses correctly that way.</p> <p>6 Q And a client wasn't going to be able to</p> <p>7 pass certification without conforming to this</p> <p>8 document; is that correct?</p> <p>9 MR. GENSER: Object to form, vague,</p> <p>10 misstates the testimony.</p> <p>11 A If the -- if the client doesn't adhere</p> <p>12 to this specification, they add or had things</p> <p>13 missing and that results in other issues, yes,</p> <p>14 we would not pass that. There are minor --</p> <p>15 minor anomalies where we just ignore some</p> <p>16 irregular messages, but in general, if they --</p> <p>17 we validate every single messages on our -- on</p> <p>18 our FIX gateway.</p> <p>19 Q So I believe earlier, you testified</p> <p>20 that this document was drafted based on your</p> <p>21 recollection on a -- by a Russian team; is that</p> <p>22 right?</p> <p>23 A That's correct.</p> <p>24 Q Did your team validate this document</p> <p>25 before it was given out?</p> <p>60</p>



<p>1 IVIC</p> <p>2 don't know for a fact whatever values were set</p> <p>3 on this, I wouldn't have that knowledge, I said</p> <p>4 it kicks in, and the market moves again for .6</p> <p>5 over PIP in their favor, and then we reject</p> <p>6 their second order.</p> <p>7 Q Okay.</p> <p>8 A And I'd like to add that, again, I'm</p> <p>9 looking at this from -- completely from a FIX</p> <p>10 perspective, the FIX gateway perspective, not</p> <p>11 the tunnel, not downstream. And whatever</p> <p>12 reporting was available to me, I mean, that's</p> <p>13 what I provided here as well.</p> <p>14 Q Sure.</p> <p>15 Is this type of data currently</p> <p>16 available to you, timestamps and other -- for</p> <p>17 trade requests and rejections from the FIX</p> <p>18 gateway currently?</p> <p>19 MR. GENSER: Object to form.</p> <p>20 A Are you stating in the production</p> <p>21 environment or in the UAT environment?</p> <p>22 Q In the production environment?</p> <p>23 A In the production environment, I have</p> <p>24 access to actually go through and troubleshoot</p> <p>25 several logs and archive several logs.</p> <p style="text-align: right;">113</p>	<p>1 IVIC</p> <p>2 "complete"?</p> <p>3 Q would you provide them with all of the</p> <p>4 data fields that are contained in this email or</p> <p>5 would you leave some of those fields out?</p> <p>6 MR. GENSER: Objection, vague.</p> <p>7 A Coming from -- again, from a client</p> <p>8 integration point of view, when I'm talking with</p> <p>9 actual developers, the technical support on</p> <p>10 Fortex or advanced markets here, I would</p> <p>11 communicate the FIX messages, not internal</p> <p>12 reporting. That is, again, for -- something for</p> <p>13 front office to have any communication or any</p> <p>14 internal reporting, but the FIX messages inbound</p> <p>15 and outbound, where we see, are usually</p> <p>16 exchanged with a client or the vendor of the</p> <p>17 cloud.</p> <p>18 Q Okay. So just so that I understand</p> <p>19 which ones are the FIX messages and which ones</p> <p>20 are the internal, right, so on Page 34, the last</p> <p>21 set, that's a outbound FIX message; is that</p> <p>22 right?</p> <p>23 A Anything --</p> <p>24 MR. GENSER: Objection, vague.</p> <p>25 A Sorry, can you repeat and point out</p> <p style="text-align: right;">115</p>
<p>1 IVIC</p> <p>2 Q And you can do this same sort of</p> <p>3 analysis today, then?</p> <p>4 A Yes, I can.</p> <p>5 MR. GENSER: Object -- well,</p> <p>6 objection, lack of foundation.</p> <p>7 Q Is the data from the FIX gateway</p> <p>8 available to clients for troubleshooting?</p> <p>9 MR. GENSER: Objection, vague.</p> <p>10 A Are you asking whether I can make FIX</p> <p>11 messages from our FIX gateway available to</p> <p>12 clients?</p> <p>13 Q Yes.</p> <p>14 A I've, on occasion, from vague memory,</p> <p>15 not specific instance, I have communicated back</p> <p>16 and forth the FIX messaging we see on our side</p> <p>17 and try to get their FIX messages, so we kind of</p> <p>18 try, troubleshoot and eliminate any technical</p> <p>19 reasons why trades are being rejected.</p> <p>20 Q When you communicate FIX messages to</p> <p>21 clients, do you provide them with the complete</p> <p>22 FIX logs?</p> <p>23 MR. GENSER: Objection, vague.</p> <p>24 A Can I ask, complete in what sense? I</p> <p>25 would -- sorry, what -- what do you mean by</p> <p style="text-align: right;">114</p>	<p>1 IVIC</p> <p>2 what you're --</p> <p>3 Q Sure.</p> <p>4 A You mean anything that's in brackets of</p> <p>5 out?</p> <p>6 Q I was referring to the -- the first</p> <p>7 page, on Page 34, so the -- the last group of</p> <p>8 messages at the bottom of that page there that</p> <p>9 have the brackets, "out," that's an outgoing FIX</p> <p>10 message; right?</p> <p>11 A It's an outgoing FIX message. And I</p> <p>12 like to be clear that that shouldn't be</p> <p>13 transformed in any way on our side. So this</p> <p>14 goes through the FIX tunnel transparently and</p> <p>15 then back to the client, so they should receive</p> <p>16 this exact same message that goes out.</p> <p>17 Q Okay. And then the ones that -- the</p> <p>18 second group, the -- the strings after</p> <p>19 69 milliseconds later, where you get hit with</p> <p>20 three requests.</p> <p>21 Do you see that group?</p> <p>22 A The inbound group, do you mean?</p> <p>23 Q Yes.</p> <p>24 would you provide those to clients</p> <p>25 unredacted?</p> <p style="text-align: right;">116</p>



<p>1 <b>IVIC</b></p> <p>2 MR. GENSER: Objection, vague.</p> <p>3 A If they request for that, yes, but that</p> <p>4 would be unusual.</p> <p>5 <b>Q It would be unusual?</b></p> <p>6 A Because these are the exact same</p> <p>7 messages that they sent us.</p> <p>8 <b>Q Okay.</b></p> <p>9 A If they were to ask for that, it would</p> <p>10 be just to see if we received them and filed</p> <p>11 them in correctly, from -- from a technical</p> <p>12 point of view, that they didn't get corrupted by</p> <p>13 the network line.</p> <p>14 <b>Q And do the clients have access to the</b></p> <p>15 <b>timestamps of the -- the FIX gateway timestamps</b></p> <p>16 <b>on inbound messages?</b></p> <p>17 A Could you please in detail clarify what</p> <p>18 you mean by "access," like in realtime access or</p> <p>19 on -- per request or --</p> <p>20 <b>Q Let's start with, without request, do</b></p> <p>21 <b>clients have access to the FIX gateway</b></p> <p>22 <b>timestamps for an inbound request?</b></p> <p>23 MR. GENSER: Objection, vague.</p> <p>24 A I -- I -- I still don't understand the</p> <p>25 question. If your question is whether I would</p> <p style="text-align: right;">117</p>	<p>1 <b>IVIC</b></p> <p>2 <b>something that they would have to ask for?</b></p> <p>3 MR. GENSER: Objection, vague. And</p> <p>4 I'm not sure that that correctly</p> <p>5 characterized the prior testimony about</p> <p>6 the timestamp.</p> <p>7 But you can answer, if you can.</p> <p>8 A I'm a bit confused on that answer, but</p> <p>9 I'll try my best to answer that. Those are</p> <p>10 server timestamps on our -- our thing. In this</p> <p>11 email, there may be other communications,</p> <p>12 there's not just AMI FX Fortex, it is -- has a</p> <p>13 whole bunch of other clients in there. So I</p> <p>14 selectively filtered out just for them. These</p> <p>15 are server timestamps, it's not necessarily</p> <p>16 something they would even know about. I don't</p> <p>17 even think there's a FIX protocol that would --</p> <p>18 or FIX message that would immediately act back</p> <p>19 what we -- what time we received that.</p> <p>20 <b>Q Okay.</b></p> <p>21 A From a FIX gateway point of view, that</p> <p>22 is, yeah.</p> <p>23 <b>Q Sure.</b></p> <p>24 <b>Okay. Okay. And then the -- the</b></p> <p>25 <b>middle string in between those, after the</b></p> <p style="text-align: right;">119</p>
<p>1 <b>IVIC</b></p> <p>2 give them the outbound messages to them with --</p> <p>3 without timestamps, if they request that, that's</p> <p>4 something I would give to the client because</p> <p>5 we're trying to troubleshoot possible network</p> <p>6 latencies there, so from a technical point of</p> <p>7 view, I would like to find out all the</p> <p>8 timestamps necessary, to find out the realtime</p> <p>9 differential on the networking side.</p> <p>10 <b>Q Right.</b></p> <p>11 But -- I'm sorry, my question must have</p> <p>12 been confusing. That -- that wasn't what I was</p> <p>13 asking.</p> <p>14 What I'm trying to understand is -- so</p> <p>15 you said, this string of data, after 69</p> <p>16 milliseconds later, we get hit with three</p> <p>17 requests, that that was an inbound message to</p> <p>18 Deutsche Bank, right, so that's an outbound</p> <p>19 message from the client. And my question was</p> <p>20 whether or not the timestamps there, which were</p> <p>21 timestamps from the FIX gate- -- the FIX</p> <p>22 gateway, were available to the client without</p> <p>23 requesting them from you?</p> <p>24 So do they just have those available to</p> <p>25 them just naturally in their logs or was that</p> <p style="text-align: right;">118</p>	<p>1 <b>IVIC</b></p> <p>2 <b>language that says, "Kicks in at</b></p> <p>3 <b>3030 milliseconds, down market moves to</b></p> <p>4 <b>1.22334."</b></p> <p>5 <b>Do you see that?</b></p> <p>6 A I can read that, yes.</p> <p>7 <b>Q Right.</b></p> <p>8 <b>Okay. So the text string there that</b></p> <p>9 <b>begins with the timestamps that are 08:21:17,</b></p> <p>10 <b>118?</b></p> <p>11 A Yes.</p> <p>12 MR. GENSER: What's the question?</p> <p>13 <b>Q Are those -- is that data something</b></p> <p>14 <b>that's available to the clients on their end</b></p> <p>15 <b>without request?</b></p> <p>16 MR. GENSER: Objection, vague.</p> <p>17 A Not the actual FIX gateway. They would</p> <p>18 have to request exactly what we are recording on</p> <p>19 our FIX gateway, as I said, there might be</p> <p>20 additional processing time, so maybe that</p> <p>21 timestamp, it wouldn't be relevant to them,</p> <p>22 maybe they wouldn't want the FIX tunnel</p> <p>23 timestamps, if we could capture that, so this --</p> <p>24 I mean, when you look at timestamps, there is</p> <p>25 components downstream that adds latencies here</p> <p style="text-align: right;">120</p>

